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USSR Report

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No. 1285

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MAJOR CROP PROGRESS AND WEATHER REPORTING

WEATHER ANOMOLIES REPORTED FROM BALTIC, RSFSR

[Editorial Report] The USSR Labor Union newspaper TRUD in Russian carries several short reports of unusual weather this spring. The 25 April edition carries two reports from the Baltic area.

One report states that spring had no sooner come into its own in the area when the lines of communication between Klaypeda and Kaliningrad were disrupted. Frequent thaws in the winter and the nearness of ground water to the surface lead to the appearance of ruts and gullies. In getting around them cars and buses were splashing through the water and frosts were forming ice hummocks up to a meter and a half in height. Bulldozers were unable to deal with this and sappers had to be called in to make skillful use of explosives to restore vehicular traffic between Klaypeda and Kaliningrad.

The same edition tells of roads around Daugavpils, Jekabpils and Rezekne in eastern Latvia being overrun by thousands of frogs. Scientists' explanation for this is the fact that this year's unprecedentedly cold spring and the high level of cold water forced the frogs to seek warmth on the pavement.

The 12 May edition reports snow around Novosibirsk after a warm spell:

"April and the beginning of May were exceptionally warm this year in western Siberia. The temperature climbed to 24°, and in places to 26-28°. In Novosibirsk the lawns turned green and the apple trees blossomed in the city squares. People put on summer clothing and lines formed at the kiosks for ice cream, carbonated water and kvas. But then on 10 May the wind blew in from the Arctic Ocean, and in the evening a February style blizzard rushed over western Siberia. A thick layer of snow covered the green lawns, blossoming apple trees, and sidewalks and obscured car windows. For those who had gone to work in the morning in summer clothing, returning home was not easy. The blizzard raged more than 6 hours.

The 24 May edition related the story of special efforts required from herdsmen in northern Yakutia to guide a herd of 1,300 deer through the Sul'khak Pass in the Verkhoyansk Range. The primary challenge was posed by the arrival of a day and a half long blizzard accompanied by high winds and the need to beat a path through the nearly impassable drifts it left in its wake.

It happened the other day. The citizens of Maykop, upon waking up in the morning did not know their own city. All the streets, plazas, parks and squares were under a cover of snow which in some places reached 10 to 15 centimeters in thickness. Many trees, especially young ones, already well leafed out, could not bear the weight of the ice and were broken to the ground and blocking the streets. The city park was turned into an impassable forest by the fallen trees, branches and twigs. Twelve high voltage lines were unable to bear the weight of the clinging snow. Transmission of electric power to certain enterprises and residences ceased, the street lights went out. The movement of motor vehicle traffic and the work of factories and plants was disrupted.

The whole population of Maykop rose at the command of the staff created to restore the disrupted order in the city.

The situation was more complicated in certain rural rayons in the foothills. Fields of winter wheat, vegetable gardens, orchards and shelter belts at many enterprises suffered from the prolonged rains which turned into heavy snow. Water levels in many mountain rivers rose above the critical mark. Water flooded fields, orchards and gardens. Thousands of kolkhoz and sovkhoz workers are firming up the banks.

Weather forecasters at the Krasnodar Hydrometeorological Observatory explain the present weather phenomenon by the unexpected arrival of very cold arctic air in these warm territories. It caused a sharp drop in temperature.
(Moscow TRUD in Russian 19 May 81 p 4)

"Caution: Snow Drifts on Roads." Thus the drivers in Chelyabinsk who journeyed out yesterday were warned. The May snowfall provided many worries--motor vehicle movement was made more difficult, work ceased in the fields.

As they informed us at the Chelyabinsk Hydrometeorological Observatory the May snow storm was especially furocious in the region of the cities of Nyazepetrovsk and Verkhniy Ufaley, where the snow cover reached 47 centimeters in 24 hours. (Moscow TRUD in Russian 19 May 81 p 4)

CSO: 1824/282

MAJOR CROP PROGRESS AND WEATHER REPORTING

BRIEFS

CHELYABINSK AREA HIT BY MAY SNOW, COLD--"Caution: Snowdrifts on Roads." Thus all drivers in the Chelyabinsk area who journeyed out on their regular runs were warned on 18 May. The May snowfall provided many concerns--motor vehicle movement was made more difficult, work ceased in the fields. As they informed us at the Chelyabinsk Hydrometeorological Observatory, the May snowstorm was especially ferocious in the region around the cities of Nyazepetrovsk and Verkhniy Ufalety, where the snow cover reached 47 centimeters in 24 hours. Around Chelyabinskaya Oblast temperatures have remained below freezing by up to three to seven degrees. However, the main snowstorm has already passed, and a warming trend has begun. [Text] [Moscow PRAVDA in Russian 19 May 81 p 6]

UNUSUAL WEATHER IN STAVROPOL'SKIY KRAY--On the morning of 15 May snow covered the leafing twigs of the trees, the green lawns and the roofs of houses in the Kray capital and its environs. This year has broken all records for unstable weather. Thus in January in the heat of the sun strawberries were not only flowering but putting forth fruit. On the other hand the prolonged adverse weather in March kept the sowing units off the fields longer than usual. In truth this snow fell during above freezing temperatures. As the agrometeorologist have informed us there was no significant damage to the plants. [Text] [Moscow PRAVDA in Russian 16 May 81 p 6]

CSO: 1824/295

STANDARDIZATION OF SCIENTIFIC-TECHNICAL TERMINOLOGY IN PROCUREMENT SYSTEM

Moscow MUKOMOL'NO-ELEVATORNAYA I KOMBIKORNOVAYA PROMYSHLENNOST' in Russian No 3, Mar 81 pp 26-27

[Article by A. Baum, candidate of technical sciences: "Improvements in Work of Standardizing Scientific-Technical Terminology Within the System of Procurements"]

[Text] Scientific and engineering development is accompanied by rapid, continuous and considerable quantitative growth in scientific, technical and technical-economic terminology. And today, with computer equipment being introduced into all branches of the national economy on an increasingly greater scale for planning, accounting and control operations and with the mechanization and automation of information processes, the establishment of accurate and scientifically sound terminology is especially important. A simple understanding of the terms employed in normative-technical and other documents and in scientific-technical and reference literature serves to promote improvements in the quality of their preparation and execution.

Great importance is also attached to the unification and standardization of terminology as a result of the constantly developing international collaboration.

Work has been carried out and work continues to be carried out in the USSR Ministry of Procurements in connection with the regulation and standardization of terminology and ST SEV 1052-78 "Metrology. Units of Physical Measurement" has been placed in operation. However, in the various types of handbooks, rules and instructions being produced, one often encounters incorrect names for products, raw materials, materials, equipment, technological operations and even for enterprises. Thus, as far back as 1974 the USSR Ministry of Procurements approved the title of "milling plant" for enterprises engaged in the production of flour and yet in the rules for organizing and carrying out the technological process, published in 1978, use was made of the term "mill." Unfortunately, this is not a singular example. Instead of the term "mixing of flour," as approved in a standard (State Standard 10814-71), we are still encountering the expression "sorting of flour." The sifting units of separators -- sieves or sieve beds -- quite often are incorrectly referred to as screens, which in accordance with State Standard 214-77 "Sieve Beds Having Round Elongated and Triangular Openings" are understood to be units for separating out grain by sifting it through more or less fine screens (made out of metal wire, synthetic thread or natural silk thread). In official documents and publications and in addition to the term "acceptance of grain," use is also made of the incorrect term "receipt" of grain. The term "acceptance" is employed extensively

in such publications as the newspapers PRAVDA, IZVESTIYA, SEL'SKAYA ZHIZN' and others. The same holds true for state standards. For example, in State Standards 12094-76, 12095-76, 12770-73, 6378-72 and others, only the term "acceptance" is used; this term must be employed in all official documents and publications.

The incorrect expression "working over" is still being encountered in documents in place of the correct "processing" of grain. The term "working over" has quite another semantic meaning and is usually employed in conversation as incidental additional work or additional study of a particular problem. The term "processing" denotes a completely accurate idea -- to subject an object to a definite production operation and to bring it to a finished form. In conformity with the conditions of grain receiving and grain processing enterprises, this applies to the cleaning of grain, its drying, cooling, decontamination and so forth.

Violations are often tolerated in the standards for terms and definitions, names and the designations for physical values. Thus the term "amount" is used in place of the term "volume" and "content" in place of the term "mass proportion." For example, the "amount of air in a cubic meter" is written in place of the "volume of air in a cubic meter, the "amount of moisture in a kilogram" is written in place of "mass of moisture in a kilogram, instead of "mass proportion of moisture in grain in percent" -- "content of moisture in grain in percent," in place of "mass concentration of dust in air in grams per cubic meter" --- content of dust in air in grams per cubic meter and so forth.

The ratio of the mass of a component to the overall mass of a body is defined by the term "mass proportion;" this term was established by Standard 31/8 of the International Organization for Standardization (ISO). Thus, for example, if the gluten "content" in wheat is 20 percent, then in conformity with ISO Standard 31/8 use should be made of the expression "mass proportion of wheat gluten is 20 percent."

Incorrect identifications are frequently tolerated for substantially different ideas such as "mass" and "weight" or "density" and "proportion."

The mass of a body, as is well known, is referred to as the amount of substance determined on a scale using the method of comparing two masses of a weighed body, under conditions involving an equal acceleration in the force of gravity. A kilogram (kg) is used as the unit of mass in the international system.

The weight of the body is the force with which the body, as a result of the earth's attraction, acts upon the fulcrum or cross-hair of the carrier arm; it equals the mass of the body multiplied by the acceleration in free fall. The weight is determined in units of force (Newton).

The ratio of the inactive mass of a body to its volume (kilograms per cubic meter) should be understood to mean the density and not a proportion (volumetric weight or bulk density), which is defined as the ratio of the weight of the body, that is, the force of gravity, to its volume (Newtons per cubic meter).

Thus the proportion, which is dependent upon an acceleration in the free fall of the body (force of gravity at the point where it is determined), cannot be a parameter

of the substance -- it can only be the density. Thus the terms "mass" and "density" should be employed for describing bodies. The terms "weight" and "proportion" are acceptable only for computations used in determining the pressure of a body on the fulcrum or cross-hairs of a carrier arm.

In accordance with recommendations by domestic and international organs for the standardization of terminology, the term "cubic content" should not be used for describing the interior space of silos, containers and devices; rather, it is recommended that use be made of the term "capacity," which is understood to mean the volume of the interior space of a container or device. Capacity can be expressed both in volumetric and weight units. Thus, for example, it is permissible to state -- capacity of a silo is 600 tons, or the capacity of a silo is 750 cubic meters. The term "volume" should be employed for describing the space occupied by a body or substance (volume of grain in a silo is 600 cubic meters).

Instead of the term "number of revolutions (shaft)," it is recommended that use be made of the term "frequency of rotation" (shaft). Similarly, instead of the term "number of fluctuations" (sieve), use should be made of the term "frequency of fluctuations" (sieve). A second to the minus 1 power (S^{-1}) is a unit of the SI [International System] for frequency of rotation.

The established system for designating equipment that is serially produced by machine-building plants of VPO Soyuzpromelevatormel'mash of the USSR Ministry of Procurements is not always being observed. Thus, chain conveyers that have been in series production since 1979 were given the non-standard designations KTsM-12 and KTsM-30 instead of TsT-12 and TsT-30. The modernized horizontal mixers which entered into production in 1980 continue to bear the former non-standard designation SGK-2.5M.

Non-standard designations have also been assigned to new items of laboratory equipment for use in the mixed feed industry: an instrument for determining the friability of granules -- PPG-2 and instruments for separating out and measuring metallomagnetic impurities -- PZF-1 and PIF-2. Many such examples could be cited.

It is known that the designations for items should be provided during the stage of working out the technical task and that they should consist of a code number for the organization-developer and an index for the item, which is written following a dash and after the code number of the organization-developer. The index for the item must consist of three letters, the first of which designates the principal branch of industry for which the item is intended, the second -- defines the technical nature of the item and the third -- the type of design. The index "B" was established for the milling-groats industry, "D" for the mixed feed industry and "U" for the elevator industry. The letter "A" is used for designating other types of food equipment. If the equipment has roughly the same design but differs in terms of productivity, then a number indicating the machine's productivity is added at the end of the index, following the dash.

If a machine has been partially modernized, an ordinal number indicating the modification of the equipment following modernization is placed after the last letter in the index.

The problem of regulating the designations for serially produced equipment warrants serious attention. In past years, equipment used within the procurement system also had easily remembered names in addition to the code number and index -- Uspekh and Kuzbass dryers, Leninets, Yanvarets and Samarets mobile conveyers, Bulavenko self-feeder, Triumph winnowing-sorting machine and others. Today, with the exception of the Tselinnaya grain dryer, the machines have only code numbers and indexes. Meanwhile, this problem is being handled somewhat more satisfactorily in other branches of industry. For example, everyone is familiar with the small Volga, Moskvich, Zhiguli and Zaporozhets automobiles, the Niva combines, the Kirovets tractors and many others.

A number of countries even have special firms which, with the aid of electronic computers and in accordance with orders received from enterprises, think up special names for equipment, names which are easily pronounceable and lacking at other enterprises and at times in other countries as well. Thus the well known Belgian pneumatic unloaders were given the name Vigan, based upon an electronic computer recommendation.

An intensification of the work being carried out in connection with terminology at scientific-research institutes and subunits of the USSR Ministry of Procurements will promote better control over this problem.

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LIVESTOCK

POULTRY RAISING PRODUCTION POTENTIAL EXPLORED

Moscow SEL'SKAYA ZHIZN' in Russian 30 May 81 p 2

[Article by N. Trat'yakov, professor: "Broilers in the Farmyard"]

[Text] Dear Editorial Board! We are residents of villages which are located at some distance from the rayon center and we wish to know where it is possible for us to purchase chicks and ducklings. We formerly had an incubator station in Alekseyevka and thus we were always able to purchase young poultry stock. The station has since been closed down. A poultry factory has been created in the rayon and it is located 25 kilometers from Alekseyevka and it can only be reached by rail transport. Moreover, in order to purchase chicks, one must travel a distance of 50 kilometers to the village of Krasnoye and spend a minimum of 2 days in doing so. The decrees issued by the party and government concerning rural workers contain strong statements concerning the need for producing more meat on the private farms. However, the necessary conditions are not being created for us so that we may accomplish this. We request your assistance in opening up the incubator station at Alekseyevka.

Residents of the village of Sovetskoye
Alekseyevskiy Rayon,
Belgorodskaya Oblast

Neither scientists nor practical poultry workers can remain indifferent to the decree handed down by the CC CPSU and the USSR Council of Ministers entitled "Additional Measures for Increasing the Production of Agricultural Products on the Private Plots of Citizens." It is making it possible to mobilize considerable reserves in behalf of the rapid development of Soviet poultry raising operations.

The successes achieved in public poultry raising are beyond question. The state is expending considerable effort and resources in the interest of bringing about sharp improvements in the production of poultry products. A special union-republic control organ has been created -- Ptitseprom [Administration of the Poultry Raising Industry]. As a result, poultry raising has surpassed to a considerable degree, in terms of its rate of growth, all of the remaining branches of animal husbandry.

Nevertheless, the production of poultry products, especially poultry meat, has still not reached the required level. The importance of the private sector as a reserve for the production of food goods throughout the country is emphasized in the decree handed down by the party and government. Unfortunately, for some time now private poultry raising has not undergone any further development. Since 1980, the production of eggs in this sector has remained at roughly the same level -- 20-23 billion. And if one takes population growth into account, then it becomes clear that during these years the per capita harvest of eggs from the private farms decreased by roughly one fifth.

Could it be that the rural residents do not wish to raise poultry? According to a large amount of data, this is not true. For example, the director of the Kishinev Poultry Factory, A.A. Seredkin, believes that the population in Moldavia alone would like to procure 30-50 million chicks annually. The fact of the matter is that the poultry requirements of the population are high and that these requirements are by no means being satisfied fully.

We were able to acquaint ourselves with the status of industrial and private poultry raising in Krymskaya and Odesskaya Oblasts in the Ukraine, in Ryazanskaya, Kuybyshevskaya, Orenburgskaya, Omskaya and Penzenskaya Oblasts and Stavropol'skiy Kray in the RSFSR and in Uzbekistan, Moldavia, Latvia and Lithuania. Some oblast trusts of Ptitseprom possess a correct understanding of the role they play as centers for the development of state, kolhoz and private poultry raising operations. For example, last year the Kuybyshev Trust of Ptitseprom made more than 7 million head of day-old young stock available for sale to the population and at the same time they provided leaflet-brochures on the raising of chicks under domestic conditions to those desiring such information. The Moscow administration for poultry factories sold 4.5 million chicks to residents of the oblast. Many such examples could be cited.

At the same time, there are many instances where the trusts of Ptitseprom fail to take into account the national economic requirements. They overlook the role to be played by IPS's [incubator poultry-raising station] and the reason for which these stations were earlier created: to supply the kolхозes and the population with young poultry stock.

We are of the opinion that as yet not all of the soviet and economic organs in the various areas are applying themselves properly to the problems of private poultry raising. Even the local soviets often formulate their solutions based upon antiquated methods and in an incomplete manner: for example, they write about egg procurements instead of addressing themselves to the problem of increasing egg production among the population. Private poultry raising must be allowed to grow and develop. This will make it possible not only to increase the production of poultry eggs and meat for the private use of local residents, but in addition it will serve to expand noticeably the procurements of products for cities and industrial centers. Moreover, it will also expand the kolhoz market trade. In the process, reductions will take place in expenditures for the construction of large-scale poultry raising installations; vast additional feed resources are being employed for the production of valuable products -- table remnants, the products of private plots, grazing areas for geese on unsuitable lands, the use of local water areas, the harvesting of wild plants and so forth. Finally, one should not overlook the

fact that it is more advantageous to breed certain types of poultry -- geese, guinea hens, musk ducks and decorative and rare strains -- on private plots. But such work must be properly organized -- it must not be allowed to simply drift along.

Beyond any doubt, the production of poultry eggs and meat throughout the country must be developed on an industrial basis through the concentration of such production at poultry factories and large mechanized poultry farms at sovkhoses and kolkhoses. But there is also a definite need for a close link to exist between these public forms of management and private poultry raising. Ptitsprom serves as a leading organization in this system. A staff unit should ideally be created in its structure, a unit which would be held personally responsible for all contacts with private poultry raising operations and for coordinating the work of providing the private plots with young stock, feed, simple items of equipment and information on leading methods.

The procurement organizations of consumer cooperation must organize, on a more extensive scale, the work associated with supplying private poultry raising with mixed feed based upon contractual arrangements and agreements. At times, one hears the opinion being expressed that it is unprofitable to supply private poultry raising with the feed that it needs, since the return from feed in the form of output is lower here than it is in public poultry raising. This is actually true if the mixed feed is supplied according to the norms for its consumption on the public farms. But it is sufficient to supply the private farms with, let us say, just one fourth of the accepted norms and thereafter the owners of the farms can supply the remainder themselves by producing additional feed resources. One fact must be borne in mind -- in the absence of mixed feed, the population uses for poultry feed either grain or, let us call it by its proper name, stolen grain forage. We cannot recognize as normal a situation wherein feed which was made available for sale to the population did not reach the addressee, nor was it used as intended. This actually occurred, for example, in Kasimovskiy Rayon in Ryazanskaya Oblast.

The process of signing contracts for the production of agricultural products is assuming greater importance in peacetime practice. From an objective standpoint, it serves two purposes: the financing of agricultural production by attracting additional monetary, material and human resources; the establishment of technological and organizational unity in the production, processing and marketing of agricultural products. Great interest is being displayed in the Hungarian People's Republic in the use of contracts and agreements in poultry raising operations. Thus, at the Cooperative imeni 15 Marta, up to 3,500 chicks delivered to the cooperative's poultry processing enterprises are being raised in 180 small broiler units located in the peasant farmyards; these chicks are being raised on a contractual basis. In accordance with the terms of the contract, the peasants are supplied with the chicks and mixed feed in granules. The zootechnical for the cooperative, specially assigned to assist the private plots, and the veterinary doctor constantly visit the plots in order to furnish advice, check on the condition of the poultry and define the feeding regime. Once raised, the broilers are shipped from the cooperative by means of transport vehicles. Thus a close link is maintained between private and public poultry raising.

Naturally, contracts and agreements cannot be employed where the required conditions are not available. However, purposeful work aimed at creating favorable

circumstances for the introduction of this method should be carried out on a more extensive scale. It is here that science must play an important role. It is obvious that the All-Union Scientific-Research and Technological Institute of Poultry Raising, which has accomplished a great deal towards the development of industrial poultry raising, should participate to a greater extent in this problem.

Positive experience is already available with regard to meeting the requirements of amateur poultry raisers. For example, the Pyatigorskskel'mash Plant imeni S.M. Kirov designed and is producing the IPKh-5 incubator for 50 eggs and the Vinnitsa Plant for Radiotechnical Equipment, in collaboration with the All-Union Scientific-Research and Technological Institute of Poultry Raising -- the Nasedka incubator for 48 hens' eggs, 32 duck eggs and 24 goose eggs. However, we are of the opinion that the capacity of such incubators should be increased to 75-100 eggs. The plant at Pyatigorsk is also producing KBI cages for the raising of broilers and replacement young stock and a block of cages for the maintenance of laying hens on private plots. The production of this simple equipment could be organized by local industry.

If an increase takes place simultaneously in the incubator volume for the eggs of all types of domestic poultry at IPS's and at incubators of poultry raising farms, then the organization of continuous and adequate sales of young poultry stock to the population will be possible in the not too distant future.

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REGIONAL DEVELOPMENT

RURAL ROAD CONSTRUCTION IN NONCHERNOZEM ZONE

Moscow SEL'SKAYA ZHIZN' in Russian 31 May 81 p 2

[Article by V. Kostylev, chief of the Republic Association for the Construction and Utilization of Roads of the Nonchernozem Zone of the RSFSR: "Road to the Village"]

[Text] In the system of measures aimed at the development of agriculture of the Nonchernozem Zone of the RSFSR the construction of roads occupies a special place. Significant changes in this matter are being felt in each of the 29 oblasts and autonomous republics of the region. In the past 5-year period the organizations of the RSFSR Ministry of Roads alone have linked here by roads 3,000 livestock complexes with central farmsteads and departments, 1,671 kolkhozes and sovkhoses with rayon centers and railroad stations, 46 remote rayon centers with oblast cities and capitals of the autonomous republics. But although in 1976-1980 5,000 km of roads were built in the Nonchernozem Zone in excess of the state plan, a high rate of their construction was not achieved everywhere.

In solving the problems of the new five-year plan, we have to not only overcome these shortcomings, but also reach the level specified by the decree of the CPSU Central Committee and the USSR Council of Ministers "On the Further Development and Increase of the Efficiency of Agriculture of the Nonchernozem Zone of the RSFSR in 1981-1985." Now it is envisaged here to build and renovate 38,300 km of roads, including 20,000 km of public roads and 18,300 km of intrafarm roads. This is 10,000 km more than during the 10th Five-Year Plan.

About 5 billion rubles of capital investments are being allocated for the development of the road management of the zone. The assimilation of this capital will make it possible to connect more than 1,200 central farmsteads of kolkhozes and sovkhoses with rayon centers and railroad stations, nearly 40 remote rayon centers with oblast centers and capitals of the autonomous republics.

Not only the quantitative, but also the qualitative indicators of the work of the road workers are improving. All the republic and oblast highways, as well as more than half of the local roads will be built with cement concrete and asphalt concrete surfaces. In the rayons, where they are experiencing difficulties with the production of stone or with its shipment by railroad, it is planned to build the beds of roads from local gravel materials and soils, which have been reinforced with concrete.

Much has to be done on the building of bridges. Large permanent bridges will be built over the Vyatka River at Buyeskiy Perevoz in Kirovskaya Oblast, the Vetluga and Vokhma in Kostromskaya Oblast, the Oka and Moksha in Ryazanskaya Oblast and the Sura in the Chuvashskaya ASSR.

But even with the complete implementation of the program a portion of the population centers will remain without hard-surfaced access roads. Additional efforts of the local soviets, road organizations and the farms themselves, which are aimed at increasing the amounts of road construction by means of internal resources, are needed in Arkhangel'skaya, Vologodskaya, Kirovskaya and other oblasts.

In this connection the initiative of the party and soviet organs of Kostromskaya Oblast, which are actively enlisting in the important matter the representatives of oblast departments--such as the Kostromskiy Combine, the Kostromaenergo Administration, the administration of reclamation and water resources and others--merits attention. By means of their capital investments and direct participation in the construction during the 11th Five-Year Plan 300 km more roads will be built throughout the oblast than is stipulated by the decree of the CPSU Central Committee and the USSR Council of Ministers. This will make it possible to unite all the rayon centers, including the remote centers, and practically all the central farmsteads of kolkhozes and sovkhozes by hard-surfaced roads.

The solution of the road problem in the Nonchernozem Zone also requires the more purposeful work of construction ministries and departments. Meanwhile many administrations of the ministries of rural and industrial construction, power and electrification and a number of others engage extremely reluctantly in the laying of roads even to the projects, the construction of which is under way. As a result the forces of the local road workers to the detriment of the village are being enlisted in the construction of roads in the zone of industrial giants under construction. That was the case with the construction of the Cheboksarskaya GES, the Surgut-Polotsk petroleum pipeline, the gas pipeline in Vologodskaya Oblast and the Gubakha Chemical Combine in Permskaya Oblast.

But the Main Administration of Construction in the Oka River Area of the USSR Ministry of Industrial Construction is approaching the matter in a different way. It has within it a well-equipped, specialized trust which is carrying out the construction of roads and access roads in the zones of industrial construction. A large contribution of the Main Administration of Construction in the Oka River Area lies in the fact that Tul'skaya Oblast with respect to the availability of hard-surfaced roads occupies one of the leading places in the Nonchernozem Zone. It seems that it is also time for other territorial administrations of construction, which operate in the Nonchernozem Zone, to think about setting up within themselves such specialized subdivisions.

Roskolkhozstroyob'yedineniye has substantial reserves for expanding the construction of motor routes. During the 10th Five-Year Plan it received much new road equipment and vehicles. However, labor productivity in the road subdivisions of this association is 15-20 percent lower than in the RSFSR Ministry of Roads, while in individual oblasts this difference is even greater.

There is also a need to think about the design of rural roads for the Nonchernozem Zone. A peculiarity of them is the fact that the "peak" loads arise here at the

most unfavorable time--in spring and autumn. Precisely at this time the traffic of heavy tractors and other agricultural equipment becomes especially heavy. That is why it is so important for RSFSR Gosstroy and the RSFSR Ministry of Agriculture with the enlistment of scientific institutes to approve new specifications for rural roads.

The factor of seasonality should also be taken into account to a greater extent when providing road organizations with motor transport. The enterprises of the RSFSR Ministry of Motor Transport annually transport to the Nonchernozem Zone for road construction 100 million tons of cargo. Now not only a simple increase of the volumes of cargo to 150-170 million tons, but also the regular delivery of vehicles depending on the season will be required. For we need the largest number of machines in the summer, at the height of construction. However, annually in July-September the vehicles leave for other jobs, which affects the productivity of excavators, loaders and other equipment.

For the zone as a whole our equipment is used 10-11 hours a day, while in Mordovia it is used 14 hours. These indicators improve annually. However, there are many obsolete machines, vehicles and equipment at our farms, while those allocated by planning organs in exchange of those written off in their production indicators are not equal to the ones being replaced. The road workers are receiving very few bulldozers and scrapers for T-130 tractors, self-propelled scrapers and truck cranes with a lifting capacity of 16-25 tons. The expansion of the quarry service is being checked due to the shortage of heavy-duty electric excavators.

Taking into account the special-purpose, comprehensive direction of the development of agriculture of the Nonchernozem Zone of the RSFSR and the well-known difficulties with the regular labor force, we consider it expedient to envisage for the road organizations of the Nonchernozem Zone the special-purpose allocation of exceptionally highly productive machinery.

Given the increasing capital investments in the construction of roads, it is important to use these assets more effectively. It seems that it is useful for the road and agricultural organizations jointly with the local soviets to examine once again the title lists of the routes being laid from the standpoint of not only their recovery, but also their direct influence on the efficiency of agricultural production. The acceleration of the elaboration of diagrams of the rayon-by-rayon layout of intrafarm roads and the limitation of the assets for road construction to those rayons where there diagrams have not been elaborated will promote such an approach to the matter.

The lack of a service for the utilization of intrafarm roads, which threatens great losses, also causes alarm. This question was examined last year by the Transportation and Communications Commission of the RSFSR Supreme Soviet. The appropriate recommendations were issued to the RSFSR Ministry of Agriculture and RSFSR Gosplan. Nevertheless the resources necessary for this purpose were never allocated.

The quickest possible solution of this and a number of other problems connected with the provision of the Nonchernozem Zone with reliable motor routes will enable the collectives of our association to fulfill successfully the obligations assumed for the five-year plan.

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CSO: 1824/272

PROBLEMS OF SUBSIDIARY FARM OF AKTYUBINSK MACHINE BUILDING PLANT

Moscow TRUD in Russian 28 Apr 81 p 2

[Article by L. Alimpiyev, director of the Aktyubinsk Agricultural Machine Building Plant: "Plant Farm Problems"]

[Text] An article entitled "Agrarian Enterprise Shop" was published on 25 January of this year. In particular, it criticized the USSR Ministry of Machine Building for Animal Husbandry and Fodder Production for the slow development of subsidiary farms.

As Deputy Minister P. Tsitsin advised the editorial board, the criticism was considered correct. As of now subsidiary farms have been organized only at 11 out of the 26 enterprises at which they were to be established. The lack of standard planning documents greatly hampered this work.

At present standard plans of subsidiary farms taking their specialization into consideration have been issued, standard plans of hog sties of a varying capacity with the utilization of food waste are being developed and a special group for the study and generalization of the experience of the sector's advanced subsidiary farms and on this basis the development of appropriate recommendations has been established.

At the same time, P. Tsitsin reported that in the sector there is a standard subsidiary farm of the Aktyubinsk Agricultural Machine Building Plant, which has accumulated rich practical experience in subsidiary farm development. Today we tell about it and about the plant farm problems arising along the path of its development.

An animal husbandry town sprang up on solonchak waste land near a busy superhighway not far from Aktyubinsk in the summer of 1979: an asphalted street, pretty silicate brick cottages and standard farm buildings. Long silvery sheep pens, hog sties and cow barns are the livestock houses. They are separated by runs made of metal structures with slate awnings protecting the animals from the sun, feeders and drinking bowls. All this is the subsidiary farm of the Aktyubinsk Agricultural Machine Building Plant of the USSR Ministry of Machine Building for Animal Husbandry and Fodder Production.

Last summer we had many guests from various oblasts in the country and even from abroad. It was difficult for our visitors to believe that our farm was built so quickly and began to produce products after a little more than a year.

We must admit that many people doubted the reality of the initiated measure and worried about the funds spent in vain. Soon, however, they too became convinced that the subsidiary farm was very profitable. A small building with the following sign on its front appeared in the center of the plant territory: store for the sale of subsidiary farm products. Workers of every shop buy fresh meat and milk there according to schedule. Considerable changes have also taken place in the menu of the plant restaurant. Every day the subsidiary farm delivers 300 kg of meat and approximately the same amount of milk to a collective of 3,000 people. When the farm gathers strength and its construction is completed, these figures will be tripled. Then the problem of meat supply at our plant will be removed from the agenda. This will be the addition to the workers' table at the plant and at home.

Many enterprises will now think about their own subsidiary farms. However, it would be naive to assume that one only has to wish and everything will be formed by itself. We have had many difficulties and some problems have not been solved to this day.

The difficulties begin at the planning stage. Planning organizations are overburdened with the filling of orders for agriculture and the allocations for planning are limited. At the same time, the needs of subsidiary farms are not taken into consideration.

The relationships with the bank remain complex. We ask our ministry for help. In turn it knocks on the doors of the USSR All-Union Bank for the Financing of Capital Investments. The latter makes inquiries at our local bank, which must confirm that the plant is able to utilize all the demanded funds. We have our arguments: We expect to carry out construction by the economic method, utilizing intrafarm material and human reserves. Finally, we received 3 million rubles of credit and now we have no doubt that we will begin paying off our debt in 1982.

A great deal depends on the help of the State Bank. We need long-term loans for the purchase of livestock and short-term loans for the purchase of fodder. Incidentally, we purchase sheep and hogs at the expense of above-plan young pedigree stock. We have found a way out. But the situation with large-horned cattle is worse--we purchase it in other oblasts.

Our limited agricultural experience convinced us that for a regular supply of animal products it is mandatory to have three types of livestock--sheep, hogs and large-horned cattle. For example, after the new year we will not begin to kill sheep--after all, in the spring they will produce 18 tons of wool. We must also be concerned with the dairy herd, although beef production remains the main task. The point is that calves, hoglings and lambs born in winter need milk. That is why we keep 150 milch cows.

Everyone knows that fodder is the main problem in animal husbandry. Using unsuitable and solonchak land, we grow winter rye, oats, Sudan grass and corn for silage. We have learned to use straw efficiently. There is little of it in our regions

and we are very surprised when we find out that it is simply burned in other places. We distribute it in a limited quantity even for bedding for animals--everything is used for fodder. Unfortunately, we obtain concentrated fodder with great difficulty.

We do not have special problems with agricultural equipment with the exception of tractors and motor vehicles. The problem of their centralized deliveries based on the allocations of their ministry is not being solved. As a result, the need is by no means fully met.

Staffs and worker groups, which deal to some extent with the problems of development of subsidiary farms at subordinate enterprises, are now being established in the ministries of machine building sectors. We believe that the experience of the ministries of coal, petroleum and gas industry, which have worker supply sections staffed with agricultural specialists, should be utilized.

In time, when the subsidiary farm stands on its own feet, we will transfer it to an independent balance. Cost accounting is needed in many respects: Recording and control will be improved, production efficiency and the quality of output will increase and measures for material incentives for livestock breeders will be utilized more widely.

Our plant was awarded the diploma of the All-Union Central Trade Union Council for the best subsidiary farm. The honor bestowed on us did not make us rest on our laurels--the subsidiary farm continues to expand and gathers strength.

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A 3-ECONOMICS AND ORGANIZATION

PROBLEMS IN ORGANIZING SUBSIDIARY FARMS IN KIROVSKAYA OBLAST

Moscow SEL'SKAYA ZHIZN' in Russian 24 May 81 p 2

[Article by V. Shachkov, member of the Oblast People's Control Committee (Kirovskaya Oblast): "Room for Initiative"]

[Text] At first glance the dining room of the Strizhi Silicate Plant differs in no way from other dining rooms. But what a diverse menu there is here. The pelmeni are especially good—juicy as mushrooms. And they are inexpensive. A 200-gram serving is only 18 kopecks. While a complete dinner costs 50 kopecks.

"We have our own subsidiary farm!" everyone explains both the inexpensiveness and the diversity of the public dining products. "Soon we will also have our own milk."

The silicate plant workers are already building a third farm. Piglets and ducks are cared for at two. To supplement the sources of fodders here they have recultivated the abandoned open-cut mines and are sowing them with grain mixtures. Food scraps make up the main share in the fodder allowance.

The leftovers from the dining table in the oblast are being used with great benefit. Not only two specialized sovkhoses for the fattening of hogs using food scraps, but also more than 100 subsidiary farms attached to departments of workers' supply, hospitals, schools and large dining rooms are in operation. The collectives of the Plant imeni XX parts'yedza, the Plant imeni Lepse and the Kirovlesurs Timber Management are actively running subsidiary farms. But for the oblast as a whole the subsidiary shop of industrial enterprises for the present is small, and the proportion of the products being produced here is not large enough to meet the increasing demands of the workers for pork and beef. What is the matter? After all, the decree of the CPSU Central Committee and the USSR Council of Ministers "On the Subsidiary Farms of Enterprises, Organizations and Institutions" gives the managers of industrial enterprises room for initiative.

The question is not as simple as it seems. Here are two similar machine building plants--the Plant imeni XX parts'yedza and the Mayak Plant. Both have subsidiary farms. But the one of the former is nearby, on the other side of the plant fence; the one of the latter is in Zuyevskiy Rayon, 100 km away. It is even difficult to get to it--there are no roads. If a breakdown occurs at the farm, if someone gets sick, if trouble with the supply of electricity arises--all this upsets the rhythm of not only the subsidiary farm, but also the plant. It is quite natural that the subsidiary rural shop provides the former enterprise not only dairy and meat products, but also a profit.

Many industrial enterprises were in approximately the same situation. In Slobodskiy Rayon farmlands were allocated to enterprises for subsidiary farms in those areas where it is possible to travel only in winter. It is understandable that the managers of the enterprises resist such a "gift" with all their might. Indeed, where do you begin? With the building of a road, of course. But even if you pooled the efforts and assets of all the concerned parties, there would not be enough of them to lay a reliable 30-kilometer road. But without a road nothing can be done in a remote place.

The executives of the local organs in Verkhnekamskiy and Omutninskiy Rayons proceeded differently. Here they found a site near the city for the cable makers and metallurgists for the building of subsidiary farms, while separate lands were allocated for the procurement of fodders. The procurement of fodders is a seasonal business; here impassable roads are not such an obstacle as in the case of construction. In winter the fodder will be delivered without particular trouble. But the managers of the plants can effectively intervene in the work of the subsidiary farm.

The question of allocating lands for subsidiary farms is one of the main questions. To be sure, it is not easy to find acceptable parcels for everyone. But if you want to....

The settlements of horticultural societies are springing up like mushrooms around Kirov and many industrial centers of the oblast. For this purpose the local soviets are allocating hay fields, pastures and fallow lands, which are overgrown with bushes, and even abandoned parcels of plowland. Without great expenditures the societies link the dacha settlements by roads with the main highways. The capital, equipment and materials are being found for this.

We are far from contrasting one to the other. We only want to emphasize that if desired it is also possible to find suitable parcels of land for subsidiary farms.

It is also necessary to be a bit more active in other matters. The decree of the CPSU Central Committee and the USSR Council of Ministers on subsidiary farms clearly specified the functions of each sector of this business. The ministries and departments provide the enterprises with everything that is needed and finance it, while the local agricultural organs deal with the technical and technological service.

"Unfortunately, locally we are considered outsiders," says V. Krupinin, deputy director of the Mayak Plant. "Courses of machine operators have been started in the rayon, but they do not take our people; they set up in the rayon brigades for taking organic fertilizer to the fields--our parcels do not count; we requested spare parts for the agricultural machinery--it is out of the question, they say, there are not enough for ourselves."

And no one has yet straightened out this situation. At the same time no one has taken the necessary steps to overcome the dependent sentiments of a number of departments. For the industrial enterprises should obtain the required assistance from their own ministries. Some obtain it, but a different picture is more typical. For example, the Ministry of the Timber, Pulp and Paper, and Wood Processing Industry, having learned that the Slobodskoy Plywood Combine was preparing to build a subsidiary farm, immediately "sent out" to it a plan on meat production. The

"assistance" was limited to this. It is not surprising that the subsidiary farm at the combine "has been coming into being" for 3 years now.

The enterprises subordinate to the ministries of nonferrous metallurgy, light, the chemical, machine tool and tool building industries, instrument making, automation equipment and control systems, transport machine building and motor transport are not taking part in this important work. And at the plant for the processing of nonferrous metals, the tire plant, the instrument making plant, the Sel'mash Plant, the Pochvomash Plant, the Plant imeni 1 Maya, the textile combine, the administration of motor transport and the railroad department for the time being they are confining themselves to talks on the creation of subsidiary farms.

At the same time the managers of these recognized industrial enterprises incessantly show up at the oblast planning commission: increase, they say, the assets for agricultural products. But the managers of the plant for the processing of nonferrous metals, the Iskozhs Combine and the Vyatka Timber Floating Office in general proceeded in an original manner. They moved their representatives to remote regions with assets which were released for the development of social, cultural and personal services. And there the independent procurers of meat jacked up the prices so much that the local cooperative employees were not able to compete with them.

At one time the Executive Committee of the Kirovskaya Oblast Soviet of People's Deputies adopted a special decision on the development of subsidiary farms. More than 40 enterprises and plants, organizations and institutions, which are obliged to have subsidiary farms, are indicated in it. But only individual ones have implemented this decision. Here they do not seem to remember: any decision is worth something only when the proper monitoring of its implementation is established!

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AGRO-ECONOMICS AND ORGANIZATION

PROBLEMS IN AGROINDUSTRIAL INTEGRATION IN DAIRY, MEAT PRODUCTION NOTED

Moscow PLANOVYE KHOZYAYSTVO in Russian No 5, May 81 pp 80-85

[Article by A. Kharchenko, chief of the division of the USSR Ministry of Meat and Dairy Industry: "Agroindustrial Integration in Dairy and Meat Production"]

[Text] The present stage in the development of agriculture is characterized by a rise in the level of production specialization and concentration and an expansion of interfarm cooperation and agroindustrial integration. These processes also occur in animal husbandry. At present more than two-thirds of the kolkhozes and sovkhoses have more than 1,000 head of large-horned cattle and more than one-half of the farms have more than 1,000 hogs on each.

There are more than 1,500 large interfarm enterprises specializing in the breeding and fattening of livestock meeting high weight requirements. The construction of large animal husbandry complexes and areas designed for an annual fattening and sale of tens of thousands of head of large-horned cattle and hogs has begun and is continuing.

The contribution of interfarm enterprises and animal husbandry complexes to the replenishment of the country's meat balance becomes more and more significant. Whereas in 1977 their share in the total sale of livestock to the state by public sector farms comprised 13 percent, in the first half of 1980, about 18 percent. A total of 80 percent of the delivered stock of large-horned cattle has a higher degree of fatness, which exceeds the corresponding indicator on kolkhozes and sovkhoses by 20 percent.

Many of the country's kolkhozes and sovkhoses have a developed dairy farming and produce and deliver a large volume of commercial milk to dairy enterprises. After the March (1965) Plenum of the CPSU Central Committee gross milk production on this category of farms increased more than 1.5-fold, totaling 66.4 million tons in 1979.

Under the conditions of the fundamental reorganization of animal husbandry and its transfer to an industrial basis with due regard for the increased demands on the efficiency and quality of work and intensification of the orientation of the activity of all national economic links toward end results, an improvement and intensification of economic production cooperation between agricultural enterprises and the processing industry acquire great importance. As noted in the decree of

the CPSU Central Committee "On the Further Development of Specialization and Concentration of Agricultural Production on the Basis of Interfarm Cooperation and Agroindustrial Integration," scientific and technical progress and the organization of large specialized enterprises and associations in agriculture ensure favorable prerequisites for the further development of agroindustrial integration.

A direct acceptance of livestock and milk on kolkhozes and sovkhoses and their centralized delivery by the specialized motor transport facilities of the meat and dairy industry were introduced as of 1972. At present approximately every fourth farm delivers livestock at the places of production and every fifth farm, milk. The number of farms transferred to the new procedure of delivery and transportation of products increases annually as preparatory work is done and the necessary material and technical base (access roads to farms, weighing facilities, specialized motor transport facilities for the shipment of livestock and milk and installations for cleaning, cooling and storing milk and determining its quality) is established.

It is economically profitable for kolkhozes and sovkhoses not to divert motor transport facilities and labor resources for the delivery of their products to processing enterprises. For example, according to the data of the Ukrainian Scientific Research Institute of Economics and Organization of Agriculture imeni A. G. Shlikhter, under the conditions of the Ukrainian SSR the switchover to a centralized transportation of products from farms by the industry's specialized motor transport facilities contributed to a reduction of 3 rubles 34 kopecks in national economic distribution costs per ton of procured milk and of 9 rubles 73 kopecks, per ton of procured livestock.

An increase in shipments by specialized motor transport facilities contributes to the elimination of intermediary procurement links and rise in the preservation of the quality of livestock and milk. The regularity of arrival of raw materials for processing by meat combines and dairy enterprises improves.

However, a direct acceptance of products on farms and their centralized delivery by the specialized motor transport facilities of procurement organizations is still introduced slowly in some republics. For example, whereas in the Belorussian SSR, the Lithuanian SSR and the Latvian SSR from 50 to 70 percent of the livestock delivered to the meat industry is now transported from kolkhozes and sovkhoses and in the Russian Federation, less than 3 percent--in the Uzbek SSR, the Tajik SSR and the Moldavian SSR this work has not begun.

Such a situation is due mainly to the fact that, owing to limited resources, republic bodies cannot allocate a sufficient number of motor vehicles and capital investments for these purposes. To speed up this work and to develop it on a more systematic basis, during the 11th Five-Year Plan it is necessary to greatly increase the output of specialized motor vehicles for the transportation of livestock and milk. The decree dated 14 November 1980 of the CPSU Central Committee and the USSR Council of Ministers "On Improving the Planning of and Economic Incentives for the Production and Procurement of Agricultural Products" is also directed toward this. It envisages a centralized establishment of annual assignments for the transportation of livestock and milk from kolkhozes and sovkhoses and the allocation of the appropriate amount of special motor transport facilities and capital investments.

Practice shows the need for a fundamental examination and solution of the problem of the most rational form of economic subordination of specialized motor transport facilities allocated for a centralized delivery of livestock and milk, because this is directly connected with the efficiency of the technical and economic indicators of their utilization. In most Union republics such transport facilities are now in the system of the ministries of meat and dairy industry--directly at enterprises or specialized motor depots. Owing to the great fluctuations in the monthly (and for livestock, daily) volumes of arrival of raw materials for processing, motor vehicles often are idle. Because of the insufficient allocation of capital, investments conditions for the maintenance and repair of motor vehicles are created slowly and there are difficulties with their provision with spare parts.

Experience shows that it is most profitable to use the enlisted motor transport facilities, as, for example, in the Latvian SSR, of the State Committee for Production and Technical Provision of Agriculture, or in the Estonian SSR, of the Ministry of Motor Transport and Highways, for the shipment of livestock and milk. In this case the capital investments needed for the expansion and reconstruction of existing garage and repair facilities are smaller than those needed for their new construction. The efficiency of utilization of transport facilities increases owing to the possibility of removing the semitrailers for the transportation of livestock and milk from tow trucks, when the volume of their transportation is reduced, and using them for the shipment of other national economic goods.

The meat and dairy industry is increasing the production and delivery of protein feed from secondary raw materials obtained during the processing of livestock and milk to agriculture. In 1965-1979 the output of dry animal feed tripled and that of dry skim milk for the feeding of calves increased 11-fold. During the 10th Five-Year Plan alone the switchover to feeding calves whole milk substitutes enabled kolkhozes and sovkhoses to additionally give the state more than 5 million tons of milk for food purposes. At the same time, the economic effect obtained by agriculture totaled more than 700 million rubles and by the dairy industry, about 170 million rubles.

To increase the volumes of output of whole milk substitutes, interfarm shops for the production of whole milk substitutes are built at existing dairy enterprises with the funds of kolkhozes and sovkhoses (with the assistance of dairy enterprises in planning and providing them with equipment). Such experience is already available in Penzenskaya, Voronezhskaya, L'vovskaya, Zhitomirskaya and a number of other oblasts in the Russian Federation, the Ukraine and so forth.

The services in the slaughtering and initial processing of livestock, whose meat is used for the public dining of farm workers and employees, rendered by meat industry enterprises to kolkhozes and sovkhoses represent a promising trend. Its share in the total volume of sale of livestock for slaughter makes up 14 percent for large-horned cattle, 12 percent for hogs and 35 percent for sheep. It is still killed under primitive conditions at slaughter stations and areas directly on farms, where it is impossible to fully utilize the secondary products of slaughtering. As a result, considerable resources of crude protein suitable for the production of food and industrial products are lost.

In this connection the experience of Krasnodarskiy Kray in the organization of the processing of large-horned cattle used for public dining on kolkhozes and sovkhoses under the conditions of customer-supplied livestock by meat industry enterprises deserves to be popularized.

In 1979 the volume of processing of customer-supplied livestock at the kray's meat combines totaled 15,700 tons, or twice as much as in 1977. This enabled them to increase gross output by 15.5 million rubles and to additionally obtain 109,000 rubles of profit. The utilization of the production capacities and fixed capital of enterprises improved. From the processing of customer-supplied livestock, in addition, 460 tons of edible blood were collected, 620 tons of dry animal feed and 155 tons of inedible fat were produced; 110,000 skins were purchased and a significant amount of previously unutilized intestine and endocrine-enzyme raw materials were obtained.

For the purpose of maximally popularizing the experience of meat combines and farms in Krasnodarskiy Kray the USSR Ministry of Meat and Dairy Industry together with the USSR Ministry of Agriculture issued the order "On Measures To Increase Livestock Processing at State Meat Industry Enterprises on the Basis of Customer-Supplied Livestock." The Statutes on the Procedure of Acceptance and Processing of Livestock by Meat Industry Enterprises Under the Conditions of Customer-Supplied Livestock and the Model Contract for the Processing of Livestock Under the Conditions of Customer-Supplied Livestock were developed and approved. In 1981 the volume of processing of customer-supplied livestock is to be increased to 500,000 tons as compared to 200,000 tons in 1979.

The increase in the processing of customer-supplied livestock necessitates the creation of the appropriate conditions for this. In particular, it is necessary to allocate special motor transport facilities with a varying freight capacity for the transportation of livestock and meat to meat combines, as well as to equip kolkhozes and sovkhoses with refrigerators for meat storage with a capacity of 3 to 5 tons. Since at present the needs of meat industry enterprises and farms for such types of motor transport facilities and refrigerators are not fully met, it would be advisable to envisage an increase in their output in the plans of the appropriate industrial sectors.

Helping kolkhozes and sovkhoses to improve the quality of milk, for which specialists travel to farms and reviews of milk quality are held, has become an important part of the work of many dairy enterprises. Help is given in the establishment and equipment of special sections on farms for the cleaning, cooling and storage of milk under optimal conditions, and cadres of laboratory workers and mechanics are trained for them. In 1979 a total of 500 meat industry enterprises and 1,300 dairy industry enterprises concluded labor cooperation contracts with kolkhoz and sovkhos collectives. The contracts envisage a number of mutual obligations aimed at a successful fulfillment and overfulfillment of the plans for the sale of milk and meat to the state and the production of finished products, fuller utilization of reserves, reduction of losses, improvement in the organization of the deliveries of raw materials for processing and implementation of other measures contributing to an increase in the efficiency and quality of work. Often trade enterprises and motor transport organizations take part in the socialist competition of allied workers on the basis of labor cooperation contracts.

The realization of contractual obligations has a positive effect on the results of activity of the farms and enterprises participating in various stages of production of meat and dairy products.

For example, in the Moldavian SSR over a number of years the Bendery Dairy Combine has concluded such contracts with livestock breeders of farms, the administration of trade in the city of Bendery and the Kaushanskiy and Suvorovskiy rayon unions of consumer societies. The contracts indicate the mutual obligations of the parties for the delivery of high-quality raw materials, production of finished products in a diverse assortment from them, strict observance of the schedules of delivery of milk and dairy products to the trade network, organization of the demonstration and advertisement of new types of products and holding of client conferences. The course of fulfillment of contractual obligations is constantly controlled and regularly explained in special information posters put up on every dairy farm, in every dairy combine and in stores. Every 6 months the competition results are reviewed at joint conference meetings of farm, combine and trade workers, where the winners are given challenge pennants and commemorative awards and where a specific discussion of the shortcomings and of the tasks for their elimination is held.

The following facts attest to the fruitful results of such cooperation. The Bendery Dairy Combine and supplier farms fulfilled the five-year plan for state milk purchases ahead of schedule, that is, on the Day of Food Industry Workers--19 October 1980. During the 10th Five-Year Plan its quality improved significantly. The delivery of first-grade milk increased from 44 to 75 percent of the total volume and that of low-grade milk was reduced from 9 to 1 percent. The dairy combine fulfilled the five-year plan for the production of basic types of products--animal fat, whole milk products, cheese and ice cream--as early as August-October 1980.

The Krivoy Rog Meat Combine in Dnepropetrovskaya Oblast concluded labor cooperation contracts with a number of farms in Krivorozhskiy, Shirokovskiy and Apostolovskiy rayons in the same oblast and in Velikoaleksandrovskiy Rayon in Khersonskaya Oblast. The contracts envisage obligations for the overfulfillment of plans and strict observance of the schedules for the delivery of livestock for processing agreed upon, increase in its weight requirements and in the quality of the integument and improvement in the organization of the transfer-acceptance and transportation of animals by the specialized motor transport facilities of the meat combine.

As a result of the implementation of these measures, the meat combine fulfilled the five-year plan for meat production at the end of November 1980 and produced a significant amount of output in excess of the plan before the end of the year. The regularity of deliveries of raw materials improved. On the average, 32 to 35 percent of the amount of the monthly delivery of livestock arrives during a 10-day period. As a result of the preventive work done on farms, in 1979 intravital defects in hides were reduced by 2.6 percent. A better organization of the transfer-acceptance and transportation of livestock ensured a reduction of 15 percent in the above-standard idle time of motor transport facilities and increased its rate of turnover by 50 percent. Procurement expenditures were reduced by 9.5 percent.

Socialist competition based on labor cooperation contracts is an important means of developing agroindustrial integration. It more closely unifies and mobilizes collectives of farms and enterprises of the processing industry for the most efficient attainment of the ultimate end through an increase in the productivity of livestock and in the production and deliveries of better-quality raw materials within the time dictated by the consumers of the next link, that is, processing enterprises, encourages an intensified fight for the safety of raw materials and the products of their processing at all the stages of procurement, production and transportation and, finally, contributes to a more efficient organization of the sale of final products to the population.

This form of socialist competition among farm and enterprise collectives should be popularized and improved. In our opinion, in the system of the food complex it would be useful to establish on an experimental basis several associations for the production of meat and dairy products at the base of individual enterprises of the meat and dairy industry, kolkhozes, sovkhoses and, perhaps, motor pools providing for the transportation of raw materials and finished products. It would seem that in these associations farms and enterprises should retain their legal and financial independence and departmental subordination. However, their activity, from the technology of livestock breeding to the production of finished articles, would be directed and coordinated by the association's executive council in the interest of the most efficient attainment of the end results of work. It is necessary to develop scientifically substantiated criteria of evaluation of the association's activity. Such criteria as the fulfillment of the plans for and increase in the production of products, improvement in their quality indicators, reduction of expenditures and so forth should be the most important. On the basis of this the association council could determine the tasks of every production link and the ways and means of fulfilling them. Apparently, it will be necessary to establish central funds for financing certain measures and incentives for farms. It is very important to grant the executive body rights in the part of production planning within the association and a rational and efficient utilization of centralized funds and material-technical and labor resources and to create other opportunities for operative-economic independence necessary for the orientation of the production activity of all members of the association toward the most efficient attainment of end results.

The relationships among production links within the association should be based on economic contracts, whose fulfillment would be the main criterion of evaluation of the results of their activity and the basis for material and moral incentives for collectives.

The establishment of such associations would make it possible, in practice, to develop a model of an agroindustrial complex at the level of enterprises and farms, a complex in which the problems of planning, financing and managing the production of meat and dairy products would be unified.

Discussing agroindustrial associations for the production of meat and dairy products, we must not fail to note the fallibility of some proposals on the construction of enterprises for the slaughtering and processing of livestock at animal husbandry complexes. Scientific research shows that, when large meat combines

are built, capital expenditures and production costs are lowered and labor productivity increases. Great opportunities open up for the mechanization and automation of production, introduction of advanced technology and equipment and scientific organization of production and labor. On the basis of all-around scientific research it has been determined that it is most efficient to build meat combines with a capacity of 100 to 150 tons of meat per shift and in high-commodity regions, with an even greater capacity. The maximum distance of livestock delivery should be no more than 100 to 150 km. When the proper conditions of transportation are ensured and schedules are observed, livestock delivery over such a distance does not cause losses of useful products. Experience demonstrates the unsoundness of the proposals on the construction of livestock slaughtering enterprises on farms. The situation with the establishment of milk processing capacities on farms is similar. According to the data of scientists engaged in an analysis of the work of some milk processing enterprises on farms, the activity of such enterprises is unprofitable.

I would like to stress that any economic experiment should be preceded by a careful technical and economic calculation, and only in case of complete confidence in the derivation of an economic effect should its implementation begin.

The development and strengthening of agroindustrial integration should receive a new impetus in connection with the decision on the preparation of the food program. Speaking at the October (1980) Plenum of the CPSU Central Committee, L. I. Brezhnev noted the following: "It is a question of a program called upon to bring together problems connected with the development of agriculture, the industrial sectors servicing it and the procurement, storage, transportation and processing of agricultural products and problems connected with the development of the food industry and trade in foodstuffs."¹ To accomplish this task, it is necessary to further improve the economic mechanism regulating the activity of animal husbandry and of the meat and dairy industry.

First of all, it is necessary to improve the planning of state purchases of livestock and milk and the production of finished products by processing industry enterprises.

Annual local checks show that the practice of assigning purchase plans overstated or understated without substantiation to individual farms still persists. In a number of cases a significant part of the purchase plan assigned to a rayon is realized by the population's farms and a plan "lightened" in this way is assigned to kolkhozes and sovkhozes. For example, in Lyakhovichskiy Rayon, Brestskaya Oblast, the plan for the sale of livestock to the state for 1979 for kolkhozes and sovkhozes was established at the rate of 86 percent of the 1978 level with overstated rough plans for purchases of livestock from the population. Kolkhozes and sovkhozes fulfilled their plans 113 percent, but purchases of livestock from the population were not made in the envisaged volume.

1. L. I. Brezhnev, "Rech' na Plenum Tsentral'nogo Komiteta KPSS 21 Oktyabrya 1980 Goda" /Speech at the Plenum of the CPSU Central Committee on 21 October 1980/, Moscow, Politizdat, 1980, p. 7.

To eliminate the shortcomings, a method of developing a stepped-up and, at the same time, realistic purchase plan is needed. It should take into account the attained level and rates of growth of the production and sale of products to the state, state of the fodder base, potentials for an increase in the productivity of livestock and planned organizational and technical measures for the development of animal husbandry.

Furthermore, in a number of cases plans for purchases of livestock and milk are assigned to farms in January-March, which does not make it possible to promptly (before the beginning of the year) conclude a forward contract with the procurement organization. For this reason many meat and dairy industry enterprises often do not have clearly determined volumes of deliveries of raw materials for processing at the beginning of the year, whereas, according to the statute in effect, they should coordinate the volume of delivery of finished output with trade organizations no later than 45 days before the beginning of the first quarter. Within the same period it is necessary to submit claims for railroad cars for the shipment of products to out-of-town customers.

The problem of assigning plans for livestock and milk purchases to farms for the conclusion of forward contracts no later than 1 November of the preceding year should be solved with due regard for this.

A closer coordination of production activity in animal husbandry with the processing industry to ensure a regular, uniform and smooth arrival of raw materials for processing also acquires great importance.

For example, suffice it to point to one of the most acute problems for the meat and dairy industry--the seasonal and irregular nature of arrival of raw materials. In April meat combines receive one-half to one-third of the livestock received in October. During the first two 10-day periods of any month livestock is delivered at low rates, and during the third 10-day period up to 40 or 60 percent of the monthly volume is received. This hampers a rational utilization of the production capacities of meat combines and periodically leads to idle time or an overload.

Irregular meat production necessitates meat freezing and the creation of stocks, which is connected with additional expenditures and losses during storage. The work of motor and railroad transport engaged in the transportation of livestock and meat becomes greatly complicated.

The seasonal factor is taken into account when meat combines are planned, and their capacities are calculated for the month of the "peak" arrival of raw materials, which generates additional needs for capital investments. Meanwhile, when raw materials arrive irregularly, the existing industrial capacities make it possible to process 1.5 times as much livestock as now. This would make it possible to allocate more capital investments for the reconstruction and modernization of existing enterprises, which is much more efficient.

On the other hand, during the period of mass delivery kolkhozes and sovkhoses at times have difficulties with the sale of livestock. It accumulates at the bases of meat combines, which is connected with a risk of losses. When livestock is bred regularly and delivered for processing smoothly, the indicated shortcomings can be eliminated.

Scientific research shows that regular livestock breeding will make it possible to improve economic production indicators in animal husbandry as a result of a more rational utilization of production premises, equipment and manpower, which will contribute to an increase in production efficiency. A regular and smooth delivery of young stock to interfarm enterprises engaged in the breeding, increase in the size and fattening of livestock is one of the main conditions for an improvement in the efficiency of their activity.

Under present conditions it is possible to level off and then to eliminate the seasonal nature in the deliveries of livestock for processing. Work on obtaining an increase in livestock on farms and on fattening and selling animals for slaughter should be carried out with due regard for their regular delivery to meat industry enterprises. For this it is necessary to make a gradual transition in animal husbandry to a more regular increase in young stock during the year. Now, however, about 70 percent of the calves are received on kolkhozes and sovkhozes during the first half year. Next it is necessary to more systematically organize the fattening of livestock before delivering it for slaughter. At present 80 percent of the large-horned cattle and all hogs sold to meat combines undergo preliminary fattening. However, the number of animals assigned for and removed from fattening greatly fluctuates over the months. It would be advisable to assign to farms not only quarterly, as is the case now, but monthly plans for state purchases, envisaging a gradual leveling off in the seasonal nature. With due regard for monthly purchase plans, farms should promptly assign livestock for fattening in order to sell it to the state on the scheduled dates.

An intensified orientation of the production activity of animal husbandry farms and meat and dairy industry enterprises toward higher end results is inseparably connected with the need to improve their contractual relations. As is well known, these relationships are based on forward contracts for livestock and milk, in which the volumes, assortment, dates and other conditions of the transfer-acceptance of products are coordinated and determined. During the period beginning in 1961, when the forward contract method began to be used in state livestock and milk purchases, in animal husbandry and the processing industry great changes occurred in the volumes of output and material and technical supply of these sectors, and a need for their more coordinated work was revealed. Meanwhile, during the past 20 years the standard forward contract and the Statute on the Procedure of Conclusion and Execution of Forward Contracts hardly changed. It must be admitted that in its present form the forward contract very often plays only a formal role. For example, the contract does not provide for the responsibility of suppliers for failure to meet the schedules of delivery of raw materials for processing agreed upon, while their strict observance is one of the conditions necessary for an organized and continuous acceptance and processing of livestock and milk. Therefore, it is necessary to review its content, to grant the parties concluding a contract equal rights and responsibility for the fulfillment of contractual obligations and to establish an effective mechanism of application of economic incentives and sanctions. For example, some industrial workers express the view that it is advisable to grant enterprises the right to provide financial incentives for farms and their managers and specialists for good work on the fulfillment of contractual obligations, improvement in the quality of raw materials and observance of the dates of their deliveries for processing. In our opinion, we should experimentally test these proposals at some enterprises, first determining the sources and indicators of formation of the material incentive fund for these purposes.

There is also an urgent need to regulate and establish a single livestock procurement system in the country. Livestock procurement organizations forming part of the system of agriculture are now the official procurement organizations in seven Union republics (the RSFSR, Uzbekistan, Kazakhstan, Turkmenia, Kirghizia, Tajikistan and Moldavia) and enterprises and procurement organizations of the meat industry, in the rest. However, even where procurements are entrusted to agricultural organizations, the bulk (76 percent) of the livestock sold to the state by kol-khozes and sovkhozes is delivered directly to meat combines. Therefore, it is advisable to transfer the functions of organization and execution of procurements to the meat industry, transferring the procurement apparatus and material and technical base from the system of agriculture to it. Calculations show that this will make it possible to reduce the expenditures in the sphere of procurements and to free some personnel. It will become possible to expand direct relations between farms and meat combines. At the same time, the responsibility for the organization of procurements, control over the supply of raw materials to industry and an efficient management of their resources will be concentrated in one authority. Thus, the development of agroindustrial integration of agriculture and the meat and dairy industry has great potentials, which must be utilized during the 11th Five-Year Plan.

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AGRO-ECONOMICS AND ORGANIZATION

BRIEFS

CEMA ACTIVITY IN 1980--Moscow EKONOMICHESKAYA GAZETA in Russian No 19 signed to press 4 May 1981 publishes on pages 20-21 a 3,500-word survey by the CEMA secretariat economic information section under the heading "CEMA's Activity in 1980." The survey covers the CEMA countries' cooperation in planning, science and technology, fuel, energy and raw materials, agriculture, and the food industry, transport and consumer goods production, and gives an account of CEMA's currency and financial activity and international ties, including cooperation with Yugoslavia and Finland. [Editorial Report]

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TILLING AND CROPPING TECHNOLOGY

HERBICIDE APPLICATION IN CORN RAISING AREAS OF UKRAINE

Moscow SEL'SKAYA ZHIZN' in Russian 29 Apr 81 p 2

[Article by V. Tsikov, head of the division of agrotechnology of the All-Union Scientific Research Institute of Corn, Dnepropetrovskaya Oblast: "For the Purity of Crops"]

[Text] The introduction of industrial technology of corn cultivation in Moldavia, the Ukraine and a number of oblasts in the Russian Federation has shown that each of its components is necessary and mandatory as a link in a chain. Nevertheless, the organization of weed control occupies a special place in it. On some farms the shortage of corn grain even with average weediness makes up about 25 to 30 percent. At the same time, experience shows that with a rational combination of agrotechnological and chemical methods it is possible to keep crops in a weedless state and, in practice, to eliminate machining.

At present the existing set of herbicides, when they are used correctly, makes it possible to destroy almost all the types of weeds on corn fields. Eradican remains the basic (base) soil preparation. It is noted for a high volatility, penetrates the tissues of germinating weeds mainly in a gaseous state and, therefore, requires a quick placement and a good uniform mixing with soil. It is applied at the rate of 7 liters diluted with 300 liters of water per hectare.

When applied correctly (placed in soil no later than after 10 to 15 minutes), eradican suppresses annual grasses almost completely and destroys 55 to 75 percent of the dicotyledons. It has no effect on perennial root suckers (creeping thistle, field sowthistle, cornbind and Russian sweet sultan) and sunflower windfall. Therefore, on corn fields with a mixed type of weediness it is best to apply it in mixtures with atrazine, whose doses are established depending on soil diversity, as well as on the sensitivity of the crops sown after corn. If barley, oats and sunflowers are placed during subsequent years, the mixture should not have more than 1.5 kg of the preparation per hectare. When corn is recultivated, the dose should be increased to 4 kg.

The wide species composition of weeds on areas sown with corn and their different individual sensitivity and adaptability to herbicides demand from practical workers a creative approach to the selection of chemical harvest protection agents. For example, in a number of the country's corn planting regions, where there are no stubble grasses (bristle grass and Japanese barnyard millet), the expensive base herbicide can be successfully replaced with cheaper insurance preparations--amine salt 2,4-D, oleo-gezaprim 200 or 400 and others.

Agelon--a mixture of atrazine with prometrin--will be applied together with eradican. On light soil it is applied in the dose of 4 kg per hectare and on medium- and heavy-textured soil, 5 or 6 kg. The expenditure of the working solution is 300 liters. It suppresses both monocotyledonous and dicotyledonous weeds, decomposing in soil during one vegetative period. Higher doses damage sensitive crops.

This herbicide should be applied and placed in soil with KPS-4 cultivators equipped with arrow-shaped working elements, leveling boards and rollers. Good results are also obtained when the preparation is placed with the USMP-5,4 sugar beet cultivators, as well as combined soil tilling implements. Oleo-gezaprim and zeapos 10 should not be applied to the fields to which agelon is applied.

On part of the corn fields ramrod will be applied in the dose of 8 kg per hectare (of the preparation) during presowing cultivation. It decomposes in soil in 75 to 100 days and does not have a negative effect on other rotating crops. The expenditure of the working solution is 300 to 400 liters.

In order to prevent a decrease in the phytotoxic activity of the indicated herbicides, crops must be placed on fields with a good incorporation of stubble root residues, especially after large-stem crops. The spring leveling of the fall-plowed area and the placement of chemical agents should be carried out only when soil reaches physical ripeness and eradican and sutan should not be applied when the wind is strong and the air temperature exceeds 25 degrees. It is better to use morning and midday hours and, if needed, night time as well. The units for the application of herbicides should be equipped with markers and shutoff devices should be installed on dusters.

The best results are obtained with the use of combined units, which in one field operation apply the herbicide and, at the same time, place it in soil with the BDT-7 or BD-10 heavy disc harrow. Disc implements at a speed of motion of 8 to 10 km per hour effectively ensure the completeness and uniformity of eradican placement. Under these conditions herbicides are uniformly distributed in the layer where the bulk of weed seeds is located. When the soil moisture is high, eradican should be placed with steam or sugar beet cultivators equipped with a leveling board and covering rollers, as well as with combined soil tilling implements of the Kombi-8,8 and BP-8 types.

If for some reason the effect of basic herbicides is insufficient and grass weeds appear in crops, they are destroyed at the phase of one or two leaves with insurance preparations; for example, oleo-gezaprim 200 or 400. The maximum effectiveness of such herbicides is ensured with an expenditure of up to 450 or 500 liters of the working solution per hectare.

When areas sown with corn are infested with perennial offset weeds (creeping thistle, cornbind and Russian sweet sultan) or sunflower windfall, it should be treated at the phase of three to five leaves with dialen or amine salt 2,4-D. A total of 2 to 3 or 2 to 2.5 kg of the preparations dissolved in 300 to 400 liters respectively are used per hectare. Overdosage or a late treatment of crops with herbicides can cause heavy damage to corn, which can lower its productivity considerably. For the same reason a simultaneous application of amine salt 2,4-D or dialen with zeapos 10 or oleo-gezaprim, especially on plots where eradican is applied to soil during presowing cultivation, should be avoided.

The industrial technology of corn growing on irrigated land has a number of characteristics, because the weediness of crops increases several times. The effectiveness of use of various implements for the placement of eradicant depends primarily on the type of weed. On plots where Johnson grass predominates it is best to use disc implements. In the experiments of the All-Union Scientific Research Institute of the Ukrainian Scientific Research Institute of Irrigated Farming on a field where annual weeds predominate, in practice, differences during the placement of eradicant with a disc harrow and a cultivator were not detected. In a production test good results were obtained with the placement of eradicant under a cultivator with a subsequent use of a combiner. In addition to the application of insurance herbicides, before the first vegetative irrigation at the phase of 10 to 12 leaves in corn it is necessary to carry out interrow cultivation with simultaneous irrigation furrowing. Slit furrows are made on heavy-textured soil and on slope fields. On farms with a high standard of irrigated farming on soil with favorable physical properties corn interrow hoeing does not justify itself.

Every specialist must have a map of field weediness.

A quality application of herbicides will largely depend on the preparation of working solutions. At the same time, the attainment of a uniform mixing of components is the main condition. In brief, no detail in the work with herbicides should be neglected. Otherwise, the effect from the introduction of industrial technology will be lowered considerably.

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TILLING AND CROPPING TECHNOLOGY

IMPORTANCE OF HIGH QUALITY SEED FOR SPRING SOWING STRESSED

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 4, Apr 81 pp 8-10

[Article by V. Posmitnyy, deputy chief of Glavzagotsemfond of USSR Ministry of Procurements: "Excellent Seed for Spring Sowing"]

[Text] The Communist Party and Soviet Government are devoting constant attention and concern in behalf of the further development of plant breeding and seed production for grain and oil-bearing crops and grasses throughout the country. One of the most important measures for raising the cropping power of grain, pulse and oil-bearing crops and grasses is that of achieving improvements in seed work and in varietal seed production.

In the Principal Trends for the Economic and Social Development of the USSR During the 1981-1985 Period and for the Period Up To 1990, approved during the 26th CPSU Congress, emphasis is placed upon the need for improving the system of seed production for agricultural crops, accelerating the conversion of such production over to an industrial basis, introducing new and highly productive varieties and hybrids into production operations on a more rapid basis and raising the quality of the seed.

In January of this year, the CC CPSU and the USSR Council of Ministers adopted the decree entitled "Additional Measures for Making Preparations for and Carrying Out the Spring Field Work During 1981." This decree required that measures be taken to ensure the rapid completion of the seed preparation work, to raise the seed to a high sowing condition and to ensure that the kolkhozes and sovkhoses and other agricultural enterprises are fully supplied with high quality seed, with special attention being given to supplying the farms with seed for pulse and grain forage crops. In the decree, emphasis was placed upon the need for utilizing all of the seed available for the new regionalized and promising varieties and hybrids of agricultural crops.

At the present time, a socialist competition for agricultural workers is unfolding throughout almost the entire country aimed at increasing the production and procurements of grain and other farming products. Concern for preparation of the seed for spring sowing during 1981 -- the first year of the Eleventh Five-Year Plan -- must be the object of attention by the leaders and specialists of kolkhozes, sovkhoses and grain receiving enterprises.

During the past few years, a system of seed production which meets the requirements of farming has been created throughout the country and the production of high quality and hybrid seed on an industrial basis at specialized farms and interenterprise associations and also procurements of high quality seed for the state's resources have been organized.

A decree adopted by the party and government in 1976 served as the basis for reorganizing the system of seed production. This decree established a new system for procurements and for supplying the kolkhozes and sovkhozes and other state farms with grain crop seed for the state's resources, including seed for adding to the state insurance and carry-over funds. With the appearance of the mentioned decree, definite positive results were achieved in plant breeding and seed production. Highly productive varieties of winter wheat, rye and other intensive type crops were created and disseminated on an extensive scale. Highly productive varieties of barley, rice and corn hybrids are being introduced into production operations.

The level of seed production work at kolkhozes and sovkhozes has been raised and the growing areas for the more productive varieties of grain and pulse crops and grasses have been expanded. Seed of somewhat improved quality has begun to flow into the state's resources. The sovkhozes and kolkhozes are receiving substantial assistance from the state's resources in the form of seed for these crops. One out of every five hectares of grain crops throughout the country is sown using such seed. All of the areas on which corn is grown and 70 percent of the oil-bearing crops are sown using seed obtained by the farms at grain receiving enterprises.

Owing to the unfavorable weather conditions experienced in a number of regions throughout the country during the 1980 procurement period, the USSR Ministry of Agriculture and the USSR Ministry of Procurements authorized the procurement of high quality seed for spring grain crops marked by deviations from the norms in terms of weediness, moisture content and other indices. The grain receiving enterprises were authorized to accept from all of the farms, from the 1980 harvest for the state's resources and with no limitation on quantity, (with the payment of bonuses for high quality), the seed for deficit and promising varieties of grain and oil-bearing crops and for deficit varieties and types of perennial and annual grasses and the seed for regionalized varieties of oats, pulse crops, buckwheat, winter rye and also the spring wheat varieties of Skala, Moskovskaya-35, Leningradka and Khar'kovskaya 46, the spring barley varieties of Moskovskiy 121, Omskiy 13709, Krasnoufimskiy 95, Luch, Donetskii 8, Nadya, Trumpf, Nutans 244, El'gin, Tritikale, Amfidiplod 206 and Amfidiplod 1 and also the seed for all early ripening, early to mid-season and mid-season ripening hybrids of second generation corn.

From the 1980 harvest and despite the severe difficulties caused by the unfavorable weather conditions, the plan for procuring high quality seed for grain crops (less corn) was fulfilled by 72 percent and that for hybrid and high quality corn seed -- by 105 percent. The plan for procuring high quality sunflower seed was fulfilled by 122 percent. Compared to 1979, greater quantities of high quality seed for crown flax, soybeans, winter rape and wild cabbage were procured. The kolkhozes, sovkhozes and grain receiving enterprises successfully fulfilled their procurement plans for high quality seed as follows: in the Uzbek SSR -- by 103 percent, Azerbaijan SSR -- 111, Latvian SSR -- 108, Kirghiz SSR -- 118, Armenian SSR -- 114 and in the Turkmen SSR -- by 100 percent.

During the Tenth Five-Year Plan, the grain receiving enterprises in the RSFSR, the Ukrainian SSR and the Kazakh SSR underfulfilled to a considerable degree their seed procurement plans. The grain receiving enterprises in the Russian Federation and the Ukrainian SSR on the whole fulfilled their procurement plans for high quality grain crop seed during 1976 and 1978 and in the Kazakh SSR -- only during 1976.

Many seed production farms have not fulfilled their plans for producing and selling to the state high quality and hybrid seed for individual grain and oil-bearing crops. Moreover, in the case of such individual crops as oats, millet, and especially pulse crops, soybeans, crown flax, castor-oil plants, winter barley and rye, non-fulfillment of the seed procurement plans has become chronic in nature. For example, in the RSFSR the procurement plans for high quality seed for pulse crops, crown flax and castor-oil plants were not fulfilled even once over a period of 5 years (1976-1980, in the UkrSSR -- the plans for sorghum and soybeans, KaSSR -- rye, oats, millet, pulse crops, crown flax and mustard and in the BSSR -- buckwheat, oats and pulse crops. In the UkrSSR, the plan for procuring seed for winter barley, oats, millet and crown flax was not fulfilled over a period of 4 years in a row.

The non-fulfillment of procurement plans for high quality seed for individual crops creates additional difficulties with regard to supplying the kolkhoses and sovkholes with seed from the state resources.

The situation is somewhat better with regard to the procurement of hybrid and high quality corn seed. The plan for procuring seed for this crop from the 1980 harvest for state resources was fulfilled by 105 percent. At the same time, it bears mentioning that in recent years, owing to an inadequate level of plant breeding and seed production work on the farms, the grain receiving enterprises have been supplied with considerable quantities of second generation hybrid corn seed, or 51 percent of all seed procured for this crop. Moreover, the amount of hybrid and high quality second generation corn seed being added to the state's resources is increasing with each passing year.

The procurements must consist of high quality seed for grain and pulse crops that is no lower than the fifth reproduction and it must meet the norms for no lower than the second class of the sowing standard in terms of germinative capacity and the presence of impurities that are difficult to separate out. However, owing to the existence of shortcomings in primary seed production, the specialized seed production farms are not being supplied with the required amounts of seed for high reproductions, for carrying out the plan for procuring high quality seed, and the grain receiving enterprises are forced into procuring considerable quantities of high quality seed possessing low sowing qualities.

The quality of seed being procured in the RSFSR is especially unsatisfactory. For example, 1.5 percent of the seed received at grain receiving enterprises in the RSFSR from the 1977 harvest was non-graded in terms of germinative capacity, in 1978 -- 12 and in 1979 -- 13 percent. In terms of the presence of impurities which are difficult to separate out, the percentages were 30, 51 and 45 percent respectively.

In this same republic, the grain receiving enterprises also received seed from the 1980 harvest, from kolkhoses and sovkholes, which was characterized by considerable

deviations in terms of germinative capacity and content of impurities which are difficult to separate out. Thus, only 2.7 percent of the spring barley seed procured at grain receiving enterprises in the Russian Federation met the established conditions -- 97 percent turned out to be non-grade. In terms of impurities which are difficult to separate out, 91 percent turned out to be lower than the norm for third class.

In Volgogradskaya and Saratovskaya Oblasts, all of the spring barley seed procured turned out to be of non-grade quality. Only 3 percent of the seed delivered to grain receiving enterprises in Orenburgskaya Oblast turned out to be quality standardized.

Thus, from the 1980 harvest the grain receiving enterprises were supplied with a large quantity of grain crop seed having a raised moisture content and level of weediness and this created definite difficulties during the seed preparation work.

Here, in addition to the unsatisfactory organization of production operations, the principal cause of non-fulfillment of the procurement plans for grain crop seed, we are also concerned with the many instances wherein certain farms, individual rayons, oblasts and even republics obtained gross yields which were adequate for fulfilling the seed procurement plans but which left them short of fulfilling their obligations to the state, with considerable quantities of seed remaining on the farms.

The decree adopted in 1976 by the CC CPSU and the USSR Council of Ministers called for the specialized seed production farms and specialized grain receiving enterprises to be provided with seed procurement volumes. But in violation of this important condition for the production and procurement of high quality seed for the state's resources, non-seed production farms in many oblasts and krais of the Russian Federation and in the Ukrainian and Kazakh SSR's are being provided with procurement plans for high quality seed. Moreover, in recent years the practice of preparing plans and concluding contractual agreements for procuring high quality seed from non-seed production farms has not only not declined but in fact it is even expanding.

* * *

The procurement of high quality seed for the state's resources represents only one half of the task at hand. A second and very important aspect consists of raising the seed to a high sowing condition in a timely manner at the grain receiving enterprises, for subsequent delivery to the kolkhozes and sovkhoses for spring sowing during the first year of the Eleventh Five-Year Plan. Towards this end and taking into account the spring sowing periods, schedules for the preparation of the seed and time limits for the completion of operations were established for each union republic. The task of supplying the farms with high quality seed has never been removed from the agenda and special attention is being given to this problem at the present time, since the intensification of agricultural production is unthinkable in the absence of a well organized and reliable seed production base.

The grain receiving enterprises have at their disposal the warehouse capacities and equipment required for carrying out their seed work. The existing logistical base even makes it possible, with single-shift operations, to prepare all of the grain crop seed and dry out the seed corn in a timely manner.

The majority of the collectives at the grain receiving enterprises commenced cleaning the seed in a timely manner immediately after it was received and they are preparing their grain crop seed for spring sowing during the first year of the Eleventh Five-Year Plan in a high quality manner. By 15 January of this year, the grain receiving enterprises in the Ukrainian, Belorussian, Kirghiz, Tadzhik, Armenian and Azerbaijan Union Republics had successfully coped with their seed cleaning work.

According to the situation on 1 February, 76 percent of the grain crop seed available at grain receiving enterprises of the USSR Ministry of Procurements was quality standardized in terms of all indicators of the seed standard; of this figure, 66 percent had been raised to first or second class quality.

The grain receiving enterprises in the BSSR achieved fine production indicators in their seed production work. Here, 91 percent of the seed had been raised to the norms for the 1st and 2d classes of the sowing standard by December 1980, in the KiSSR -- 92 and in the TaSSR and ArSSR -- up to 100 percent. The grain receiving enterprises in Kuybyshevskaya Oblast serve as fine examples of proper organization of seed preparation for spring sowing. Here, 94 percent of the seed was prepared in terms of all indicators, with 69 percent being raised to the 1st and 2d classes of the seed standard, in the Udmurtskaya ASSR -- the figures were 87 and 93 percent respectively, Moscow Oblast -- 94 and 76, Kurganskaya Oblast -- 90 and 79 percent and in Primorskiy Kray -- 96 and 64 percent.

Unfortunately however, the work was not carried out in this same manner in all areas. In the Latvian and Turkmen SSR's, a lag developed in the preparation of high quality seed for spring grain crops. In particular, individual grain receiving enterprises in the RSFSR organized their preparation of seed for spring grain crops in a poor manner. Here, in accordance with the approved schedule, 90 percent of the seed for these crops should have been prepared to sowing condition; however, by 1 February only 60 percent of the overall volume had actually been prepared. In the Tatarskaya ASSR, only 61 percent of the seed was quality standardized in terms of all indicators by 1 February, Orenburgskaya Oblast -- 35, Kemerovskaya -- 25, Novosibirskaya -- 46, Omskaya -- 49 and Tomskaya and Tyumenskaya Oblasts -- 46 and 43 percent respectively.

Special attention must be given to the timely procurement, drying and grading of seed corn. The USSR Ministry of Agriculture and the USSR Ministry of Procurements have developed specific measures for procuring high quality and hybrid seed corn for the state's resources from the 1980 harvest and measures were undertaken aimed at carrying out this campaign in a successful manner. This made it possible, despite the unfavorable climatic conditions experienced during 1980, to fulfill the procurement plan for hybrid and high quality seed corn. A strong logistical base has been created for the drying, grading, storage and distribution of hybrid and high quality seed corn.

A great amount of attention is being given to seed corn in the Kabardino-Balkarskaya ASSR, Krasnodarskiy Kray, Checheno-Ingushskaya ASSR, Severo-Osetinskaya ASSR, in Dnepropetrovskaya, Odesskaya, Cherkasskaya and Kirovogradskaya Oblasts in the Ukrainian SSR, in Taldy-Kurganskaya Oblast of the Kazakh SSR and in the Moldavian SSR. Here the drying capabilities are being utilized to 80-90 percent. By 1

February, 49 percent of the hybrid and high quality seed obtained from the 1980 harvest had been graded and 76 percent had been raised to the 1st and 2d classes of the seed standard.

Fine indicators in this work were achieved in the KASSR where 98 percent of the seed obtained was categorized as being in the 1st or 2d classes of the seed standard, in the UzSSR and TaSSR -- 100 percent and in the RSFSR -- 84 percent.

The corn processing plants in the Ukrainian SSR are lagging behind in their preparation of hybrid and high quality seed for this crop. By 1 February, only 45 percent of the quantity of seed obtained had been graded here and of this amount only 50 percent of the seed was categorized as being in the 1st or 2d classes of the seed standard; in the KaSSR the figures were 41 and 89 percent respectively. During the new season, specialists attached to corn processing plants in the UkSSR and KaSSR must concentrate their efforts on improving the technology and raising the productivity of the dryers and grading shops.

The task consists of completing the preparation of high quality and hybrid seed in accordance with the schedule established by the USSR Ministry of Procurements, so as to ensure the timely delivery of the seed to the distribution points. Success in this work is dependent upon the proper organization of operations at the grain receiving enterprises and upon the skilful and complete utilization of the seed cleaning equipment.

Each worker engaged in preparing seed for the 1981 spring period must remember that good seed constitutes the foundation for high yields.

The timely preparation of high quality seed for grain and oil-bearing crops and grasses and the issuing of such seed to kolkhozes and sovkhazes for the 1981 spring sowing campaign -- this represents a worthy contribution by the grain receiving enterprises and corn processing plants towards carrying out the tasks established by the 26th CPSU Congress for further increasing the production and procurements of grain and other agricultural products. Efficient work by all elements will serve as a practical response to the decree of the CC CPSU and the USSR Council of Ministers entitled "Additional Measures for Preparing for and Carrying Out the Spring Field Work During 1981" and to the decisions handed down during the 26th CPSU Congress.

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